

## CLAIMS

What is claimed is

- 5        1. A method for efficiently assembling a processing system in a manufacturing environment, the method comprising:
  - enabling a network boot option for boot packet transfers in a system under test (SUT) during a manufacturing line assembly process; and
  - utilizing data from boot packet transfers by the SUT to perform binding operations for the
- 10      SUT.
  
2. The method of claim 1 wherein the step of utilizing further comprises performing an initial binding based on boot request packet data.
  
- 15      3. The method of claim 2 further comprising performing the initial binding with a floor system server.
  
- 20      4. The method of claim 3 wherein performing the initial binding further comprises:
  - making a network connection manually between the floor system server and the SUT;
  - parsing a next boot request packet received to extract a MAC address of the SUT; and
  - binding the MAC address and an MTSN (machine-type-serial-number) directory name.

5. The method of claim 4 further comprising repeating the initial binding for each network adapter in the SUT.

6. The method of claim 4 further comprising creating a file with a binding entry for the  
5 MAC address

7. The method of claim 1 wherein the step of utilizing further comprises performing an in-process binding based on boot reply packet data.

10 8. The method of claim 7 further comprising performing the in-process binding with a local control machine.

9. The method of claim 8 wherein performing the in-process binding further comprises:  
15 reading the boot reply packet data from the SUT to get MAC and IP data;  
transferring an MTSN (machine-type-serial-number) directory corresponding to the MAC data to a local server when the MTSN directory is not already on the local server;  
setting a working directory for the SUT to be the MTSN directory; and  
launching a start-up script for the SUT to get a sequencer started.

20 10. The method of claim 9 further comprising performing the in-process binding continuously on the local control machine.

11. A system for efficiently assembling a processing system in a manufacturing environment, the system comprising:

- a system under test (SUT), the SUT having an enabled network boot option;
- a floor system server networked to the SUT, the floor system server performing an initial binding for the SUT based on boot request packet data of the SUT; and
- 5 a local control system coupled to the SUT and networked to the floor system server, the local control system performing an in-process binding for the SUT based on boot reply packet data of the SUT, wherein the SUT is efficiently bound to an order.

10 12. The system of claim 11 wherein the floor system server further parses a boot request packet to extract a MAC address of the SUT, and binds the MAC address and an MTSN (machine-type-serial-number) directory name.

15 13. The system of claim 12 wherein the floor system server creates a file with a binding entry for the MAC address

14. The system of claim 12 wherein the floor system server repeats the initial binding for each network adapter in the SUT.

20 15. The system of claim 11 wherein the local control system reads the boot reply packet data from the SUT to get MAC and IP data, transfers an MTSN (machine-type-serial-number) directory corresponding to the MAC data to a local server when the MTSN directory is not

already on the local server, sets a working directory for the SUT to be the MTSN directory, and launches a start-up script for the SUT to get a sequencer started.

16. The system of claim 15 wherein the local control system performs the in-process  
5 binding continuously.

17. Computer readable medium containing program instruction for binding a processing  
system to an order in a manufacturing environment, the program instructions comprising:  
10 performing an initial binding of a system under test (SUT) by a floor server system; and  
performing an in-process binding of the SUT by a local control station.

18. The computer readable medium of claim 17 wherein performing an initial binding  
occurs based on boot request packet data of the SUT and performing an in-process binding occurs  
based on boot reply packet data of the SUT.

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19. The computer readable medium of claim 17 wherein performing an initial binding  
further comprises parsing a boot request packet to extract a MAC address of the SUT, and  
binding the MAC address and an MTSN (machine-type-serial-number) directory name.

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20. The computer readable medium of claim 17 wherein performing an in-process binding  
further comprises reading boot reply packet data from the SUT to get MAC and IP data,  
transferring an MTSN (machine-type-serial-number) directory corresponding to the MAC data

to a local server when the MTSN directory is not already on the local server, setting a working directory for the SUT to be the MTSN directory, and launching a start-up script for the SUT to get a sequencer started.